# **Iowa Department of Natural Resources Title V Operating Permit**

Name of Permitted Facility: Bayer CropScience LP - 6909 Facility Location: 2500 Wiggins Road, Muscatine, IA 52761

Air Quality Operating Permit Number: 04-TV-010R3

**Expiration Date: June 12, 2028** 

Permit Renewal Application Deadline: December 12, 2027

**EIQ Number: 92-6909** 

Facility File Number: 70-01-008

# Responsible Official

Name: Roger Gibson Title: Site Lead

Mailing Address: 2500 Wiggens RD, P.O. Box 473, Muscatine, IA 52761

Phone #: (563) 262-7200

# **Permit Contact Person for the Facility**

Name: Mark Mathias

Title: Environmental Area Leader

Mailing Address: 2500 Wiggens RD, P.O. Box 473, Muscatine, IA 52761

Phone #: (563) 607-6054

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Marrie Stein

06/13/2023

Marnie Stein, Supervisor of Air Operating Permits Section

Date

# **Table of Contents**

I.	Facility Description and Equipment List4
II.	Plant - Wide Conditions
III.	Emission Point Specific Conditions
IV.	General Conditions
	G1. Duty to Comply
	G2. Permit Expiration
	G3. Certification Requirement for Title V Related Documents
	G4. Annual Compliance Certification
	G5. Semi-Annual Monitoring Report
	G6. Annual Fee
	G7. Inspection of Premises, Records, Equipment, Methods and Discharges
	G8. Duty to Provide Information
	G9. General Maintenance and Repair Duties
	G10. Recordkeeping Requirements for Compliance Monitoring
	G11. Evidence used in establishing that a violation has or is occurring.
	G12. Prevention of Accidental Release: Risk Management Plan Notification and
	Compliance Certification
	G13. Hazardous Release
	G14. Excess Emissions and Excess Emissions Reporting Requirements
	G15. Permit Deviation Reporting Requirements
	G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations
	G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V
	Permit Modification
	G18. Duty to Modify a Title V Permit
	G19. Duty to Obtain Construction Permits
	G20. Asbestos
	G21. Open Burning
	G22. Acid Rain (Title IV) Emissions Allowances
	G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements
	G24. Permit Reopenings
	G25. Permit Shield
	G26. Severability
	G27. Property Rights
	G28. Transferability
	G29. Disclaimer
	G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification
	G31. Prevention of Air Pollution Emergency Episodes
	G32. Contacts List
17	Annondix A

# **Abbreviations**

acfm	actual cubic feet per minute
bhp	Brake Horse Power
	Code of Federal Regulation
CE	control equipment
CEM	continuous emission monitor
°F	degrees Fahrenheit
	emissions inventory questionnaire
EP	
EU	
gr./dscf	grains per dry standard cubic foot
	grains per one hundred cubic feet
	Iowa Administrative Code
IDNR	Iowa Department of Natural Resources
MVAC	motor vehicle air conditioner
NAICS	North American Industry Classification System
	new source performance standard
ppmv	parts per million by volume
lb./hr	
lb./MMBtu	pounds per million British thermal units
SCC	Source Classification Codes
scfm	standard cubic feet per minute
SIC	Standard Industrial Classification
TPY	tons per year
USEPA	United States Environmental Protection Agency
Pollutants	
PM	
	particulate matter ten microns or less in diameter
SO <sub>2</sub>	sulfur dioxide
NO <sub>x</sub>	
VOC	volatile organic compound
CO	
HAP	hazardous air pollutant

# I. Facility Description and Equipment List

Facility Name: Bayer CropScience LP - 6909

Permit Number: 04-TV-010R3

Facility Description: Agricultural Chemical Manufacturing (SIC 2879)

Pesticide and Other Agricultural Chemical Manufacturing (NAICS 325320)

# **Equipment List**

# **A-UNIT FACILITY**

Emission Point Number  Emission Unit Number		<b>Emission Unit Description</b>	DNR Construction Permit Number
EP-3	EU-13-TK40	Technical Herbicide Storage Tank	98-A-912-S1
EP-108	EU-13-004	MEA Storage Tank	99-A-880-S2
EP-110	EU-13-053	Ethanol Storage Tank	01-A-1068-S2
EP-115	EU-13-422	Washer Feed Tank	NA
	EU-13-203	Step II Reactor "A"	
EP-121	EU-13-204	Step II Reactor "B"	93-A-378-S3
EP-121	EU-13-TK29-P1	CMA Surge Tank	93-A-3/8-83
	EU-13-TK20-P1	5 <sup>th</sup> Bay Sump	
EP-123	EU-13-483-P1	NH <sub>4</sub> Cl Recovery Process Steam Dryer	21-A-142
EP-126	EU-13-514-1	Step III Reactors	76-A-103-S6
EP-120	EU-13-514-2	A-Unit Process Off Gas	/0-A-103-S0
EP-127	EU-13-FUG	Uncaptured A-Unit Emissions	NA
	EU-13-903	Step I Process	
	EU-13-116	Finisher Recycle Surge Tank	
EP-176	EU-13-120	Crude Azo Surge Tank	82-A-042-S7
	EU-13-121	Crude Azo Charge Tank A	
	EU-13-821	Crude Azo Charge Tank B	
EP-198	EU-13-854	NH <sub>4</sub> Cl Truck Silo	83-A-028-S3
EP-242	EU-13-TK31	Formalin Storage Tank	99-A-879-S2
EP-246	EU-13-TK46	Butanol Storage Tank	99-A-881-S1
EP-264	EU-13-782	Methanol Storage Tank	92-A-107-S2
EP-280	EU-13-940	Technical Storage Tank A	95-A-089-S2
EP-281	EU-13-943	Technical Storage Tank B	95-A-090-S2
EP-285	EU-13-946	Technical Storage Tank C	95-A-506
EP-358	EU-13-407	Dehydrator Hotwell	00-A-758-S1
EP-360	EU-13-TK37	TEA Storage Tank	01-A-635
	EU-13-393	Dehydrator A	
EP-364	EU-13-394	Dehydrator B	01-A-1066
EP-365	EU-13-425	Finished Goods Receiver	01-A-1067
	EU-13-426	Finished Goods Receiver	
EP-377	EU-13-TK23	East 20% Ammonium Chloride Tank	02-A-753-S1
EP-378	EU-13-TK22	West 20% Ammonium Chloride Tank	02-A-754-S1
EP-379	EU-13-365	Resin Column Settling Tank	06-A-366-S1

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
	EU-13-381	Resin Column Feed Tank	
EP-384	EU-13-377	Water Collection Tank	NA
EP-385	EU-13-480	Ammonium Chloride Centrifuge	02-A-869
EP-397A	EU-13-1037	A-Unit CWT East	12-A-348-S1
EP-397B	EU-13-1038	A-Unit CWT Center	12-A-349-S1
EP-397C	EU-13-1039	A-Unit CWT West	12-A-350-S1

# **Equipment List**

# **UNIT SERVICES**

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP-21	EU-1734-101	Boiler #5	92-A-114-S1
EP-33	EU-2691-101-1	Boiler #6	76-A-265-S4
EP-45	EU-2691-100-1	Boiler #7	76-A-161-S4
EP-129	EU-5-FUG-AGWT	Uncaptured Ag Wastewater Treatment Plant Emissions	NA
EP-195	EU-3819-1-115-4	Boiler #8	82-A-092-P12
EP-324	EU-FS-01	Gasoline Storage Tank	97-A-753
EP-325	EU-FS-02	Diesel Fuel Storage Tank	97-A-754
EP-390	EU-15-CNP	Trim Pit	03-A-695-S1
EP-403	EU-02-0161	Emergency Generator	10-A-424
EP-410	EU-5-203	#1 East Diesel Pump	NA
EP-411	EU-5-304	#1 West Diesel Pump	NA
EP-412	EU-5-0325	#3 Emergency Fire Water Pump West	NA
EP-413	EU-5-0328	#3 Emergency Fire Water Pump East	NA
EP-414	EU-2691-03-100	#2 Emergency Fire Water Pump South	NA
EP-415	EU-2691-03-101	#2 Emergency Fire Water Pump North	NA
EP-416	EU-ECC-GEN-1	Emergency Control Center Generator	NA
EP-421	EU-CB-1	Change Building Boiler #1	NA
EP-426	EU-TP-P1	Trim Pit Diesel Motor	NA

# **Insignificant Activities Equipment List**

Insignificant Emission Unit Number	Insignificant Emission Unit Description	DNR Construction Permit
EU-NGF	36 Natural Gas Furnaces (0.04 – 0.12 MMBtu/hr)	NA
EU-NGUH	31 Natural Gas U Heaters (0.03 – 0.30 MMBtu/hr)	NA
EU-NGB	8 Natural Gas Boilers (0.199 – 0.80 MMBtu/hr)	NA
EU-NGWH	7 Natural Gas Water Heaters (0.038– 0.199 MMBtu/hr)	NA
EU-NGPU	3 Natural Gas P Units (0.04 – 0.60 MMBtu/hr)	NA
EU-1-081	T-Salt Storage Tank	NA
EU-5-15-FN-01	Wastewater Treatment Plant Building Sump	NA
EU-13-207	Azo Weigh Tank A	NA
EU-13-208	Azo Weigh Tank B	NA
EU-13-520	Mixer/Settler Fume Vent	NA
EU-13-784	Herbicide Storage Tank	92-A-109 <sup>(1)</sup>
EU-13-101	Mixer/Settler #1	NA
EU-13-102	Mixer/Settler #2	NA
EU-13-103	Mixer/Settler #3	NA
EU-13-104	Mixer/Settler #4	NA
EU-13-105 Mixer/Settler #5		NA
EU-13-TK25 Mixer/Settler #6		NA
EU-13-477 Crystallizer Condensate Receiver		NA
EU-13-494	Ammonium Chloride Redissolver	NA
EU-13TK-101	Middle Wastewater Equalization Tank	NA
EU-13TK-102	East Wastewater Equalization Tank	NA
EU-2927-01-220	West Wastewater Equalization Tank	NA
EU-13-TK15	Incinerator Feed Tank	NA
EU-13-TK19	North Wastewater Pump Tank	NA
EU-13-003	EMA/DEA Storage Tank	NA
EU-13-522	Waste Collection Tank B	NA
EU-13-531	A-200 Storage Tank	NA
EU-13-288	Ducon Venturi Scrub Pump Tank	NA
EU-13BF-1043	Azo Residue Drum Vent Fan	NA

EU-13BF-1043 Azo Residue Drum Vent Fan NA

(1) The construction permit associated with this emission unit does not contain any specific terms or conditions, therefore it qualifies as an insignificant activity per rule 567 IAC 22.103.

# **II. Plant-Wide Conditions**

Facility Name: Bayer CropScience LP - 6909

Permit Number: 04-TV-010R3

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

#### **Permit Duration**

The term of this permit is: Five (5) years from permit issuance

Commencing on: June 13, 2023

Ending on: June 12, 2028

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

## **Emission Limits**

Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 40% opacity

Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume

Authority for Requirement: 567 IAC 23.3(3)"e"

#### Particulate Matter:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed on or after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24. For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).

Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

- 1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
- 2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
- 3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
- 4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
- 5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means. Authority for Requirement: 567 IAC 23.3(2)"c"

#### **NESHAP**

Sources located at this facility are subject to 40 CFR 63 Subpart A – General Provisions.

Authority for Requirement: 40 CFR 63 Subpart A 567 IAC 23.1(4)"a"

Sources located at this facility are subject to 40 CFR 63 Subpart MMM – National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production. See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

Sources located at this facility are subject to 40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.

See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart FFFF 567 IAC 23.1(4)"cf"

Sources located at this facility are subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters. See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

567 IAC 23.1(4)"dd"

Sources located at this facility are subject to 40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. See "Emission Point-Specific Conditions" for specific emission units subject to the Subpart.

Authority for Requirement: 40 CFR 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

#### **NSPS**

Sources located at this facility are subject to 40 CFR 60 Subpart A – General Provisions

Authority for Requirement: 40 CFR 60 Subpart A

567 IAC 23.1"(2)"

Sources located at this facility are subject to 40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

Authority for Requirement: 40 CFR 60 Subpart IIII

567 IAC 23.1(2)"yyy"

# **GGGGG** Exemption and Requirements

Sources located at this facility are subject to 40 CFR 63 Subpart GGGGG - National Emission Standards for Hazardous Air Pollutants: Site Remediation. Bayer has provided documentation that the total quantity of the HAP from site remediations conducted at the facility is less than 1 megagram (Mg) annually.

Site remediation activities are not subject to the requirements of this subpart, except for the recordkeeping requirements in this paragraph, provided that you meet the requirements specified in paragraphs (c)(1) through (c)(3) of this section.

- (1) You determine that the total quantity of the HAP listed in Table 1 to this subpart that is contained in the remediation material excavated, extracted, pumped, or otherwise removed during all of the site remediations conducted at your facility is less than 1 megagram (Mg) annually. This exemption applies the 1 Mg limit on a facility-wide, annual basis, and there is no restriction to the number of site remediations that can be conducted during this period.
- (2) You must prepare and maintain at your facility written documentation to support your determination that the total HAP quantity in your remediation materials for the year is less than 1 Mg. The documentation must include a description of your methodology and data used for determining the total HAP content of the remediation material.

(3) Your Title V permit does not have to be reopened or revised solely to include the recordkeeping requirement specified in paragraph (c)(2) of this section. However, the requirement must be included in your permit the next time the permit is renewed, reopened, or revised for another reason.

Authority for Requirement: 40 CFR 63 Subpart GGGGG 567 IAC 23.1(4)"dg"

# **Multiple Title V Permits**

Bayer CropScience LP -6909 has applied for three Title V permits for their Muscatine facility. The facility will be considered as a single stationary source with regard to applicability of various air permitting programs. This permit (04-TV-010R3) covers two process areas at the facility: A-Unit and Unit Services.

- The A-Unit Facility produces the acetanilide family of herbicides: alachlor, acetochlor and butachlor. These herbicide active ingredients are transferred to other areas in the plant where they are formulated into finished products and packaged.
- The Unit Services area provides utilities and wastewater treatment for the plant. This includes steam production, wastewater treatment, groundwater withdrawal, drinking water treatment, demineralized water supply to process operations and boiler feeds, and supply of utility chemicals (nitrogen, caustic, and ammonia).

## Other Title V Permits

IDNR issued permit 04-TV-006R3 (for EIQ# 92-6908) to cover the Flowable Formulations and Liquid Formulations Units at this facility.

- The Flowable Formulations are typically water-based liquid herbicide formulations consisting of herbicide technical ingredients and other herbicide additives. Both microencapsulated and non-microencapsulated formulations are produced.
- The Liquid Formulations area formulates, packages, and ships herbicide products, herbicide technical active ingredients, and formulated herbicide premixes. The Liquid Formulations Facility packages and ships products in jugs, drums, shuttles, and mini-bulk containers. There are also facilities for providing bulk shipment of products in rail cars or tank trucks.

IDNR issued permit 04-TV-002R3 (for EIQ# 92-3670) to cover the CAC, Glyphosate Technical, and Multipurpose Units.

- The CAC Unit produces the herbicide intermediate chloroacetyl chloride (CAC). CAC is used at the facility to produce alachlor, acetochlor, and butachlor.
- The Glyphosate Technical (GT) Unit produces three salts of glyphosate: amine salt, monoethanolamine salt, and potassium salt. These salt solutions are considered herbicide active ingredients.

10

•	The Multipurpose Unit may be used to produce two products on a campaign basis. Part of the year, the unit may produce MON 13900 (furilazole), a seed safener that is blended with acetochlor for use in the formulation facilities. Additionally, the unit may manufacture MON 1400, an herbicide active ingredient. These products cannot be made simultaneously.

# **III. Emission Point-Specific Conditions**

Facility Name: Bayer CropScience LP - 6909 Permit Number: **04-TV-010R3** 

# **Equipment List**

# **A-UNIT FACILITY**

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP-3	EU-13-TK40	Technical Herbicide Storage Tank	98-A-912-S1
EP-108	EU-13-004	MEA Storage Tank	99-A-880-S2
EP-110	EU-13-053	Ethanol Storage Tank	01-A-1068-S2
EP-115	EU-13-422	Washer Feed Tank	NA
	EU-13-203	Step II Reactor "A"	
EP-121	EU-13-204	Step II Reactor "B"	93-A-378-S3
EP-121	EU-13-TK29-P1	CMA Surge Tank	93-A-3/6-33
	EU-13-TK20-P1	5 <sup>th</sup> Bay Sump	
EP-123	EU-13-483-P1	NH <sub>4</sub> Cl Recovery Process Steam Dryer	21-A-142
EP-126	EU-13-514-1	Step III Reactors	76-A-103-S6
EP-120	EU-13-514-2	A-Unit Process Off Gas	/0-A-103-80
EP-127	EU-13-FUG	Uncaptured A-Unit Emissions	NA
	EU-13-903	Step I Process	
	EU-13-116	Finisher Recycle Surge Tank	
EP-176	EU-13-120	Crude Azo Surge Tank	82-A-042-S7
	EU-13-121	Crude Azo Charge Tank A	
	EU-13-821	Crude Azo Charge Tank B	
EP-198	EU-13-854	NH <sub>4</sub> Cl Truck Silo	83-A-028-S3
EP-242	EU-13-TK31	Formalin Storage Tank	99-A-879-S2
EP-246	EU-13-TK46	Butanol Storage Tank	99-A-881-S1
EP-264	EU-13-782	Methanol Storage Tank	92-A-107-S2
EP-280	EU-13-940	Technical Storage Tank A	95-A-089-S2
EP-281	EU-13-943	Technical Storage Tank B	95-A-090-S2
EP-285	EU-13-946	Technical Storage Tank C	95-A-506
EP-358	EU-13-407	Dehydrator Hotwell	00-A-758-S1
EP-360	EU-13-TK37	TEA Storage Tank	01-A-635
	EU-13-393	Dehydrator A	
EP-364	EU-13-394	Dehydrator B	01-A-1066
EP-365	EU-13-425	Finished Goods Receiver	01-A-1067
	EU-13-426	Finished Goods Receiver	
EP-377	EU-13-TK23	East 20% Ammonium Chloride Tank	02-A-753-S1
EP-378	EU-13-TK22	West 20% Ammonium Chloride Tank	02-A-754-S1
EP-379	EU-13-365	Resin Column Settling Tank	06-A-366-S1
EP-3/9	EU-13-381	Resin Column Feed Tank	00-A-300-S1
EP-384	EU-13-377	Water Collection Tank	NA
EP-385	EU-13-480	Ammonium Chloride Centrifuge	02-A-869

Emissi Poin Numb	t Emission Unit Number	<b>Emission Unit Description</b>	DNR Construction Permit Number
EP-397	A EU-13-1037	A-Unit CWT East	12-A-348-S1
EP-397E	B EU-13-1038	A-Unit CWT Center	12-A-349-S1
EP-3970	EU-13-1039	A-Unit CWT West	12-A-350-S1

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-TK40	Technical Herbicide Storage Tank	Herbicide	300,000 gallons	98-A-912-S1

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit

#### Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. Materials stored in this tank shall have a maximum true vapor pressure, as defined in 40 CFR 60.111b less than 3.5kPa.
- B. The owner/operator shall maintain safety data sheets (SDS) or other documentation of the maximum true vapor pressure of all materials stored in this tank.

Authority for Requirement: DNR Construction Permit 98-A-912-S1

#### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.* 

Stack Height, (ft, from the ground): 59

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 167 Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 98-A-912-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required?

Yes 
No

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-004	MEA Storage Tank	2-methyl-6-ethylaniline	75,000 gallons	99-A-880-S2

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

## Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

There are no operational limits & reporting/record keeping requirements for this unit.

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 24

Stack Opening, (inches, dia.): 6

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 87 Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 99-A-880-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required?

Yes 
No

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-053	Ethanol Storage Tank	Ethanol	75,000 gallons	01-A-1068-S2

# **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 26

Stack Opening, (inches, dia.): 8 Exhaust Flow Rate (acfm): 0 to 13 Exhaust Temperature (°F): 50 Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 01-A-1068-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

Associated Equipment

Emission	Emission	Emission Unit	Raw	Rated	Construction
Point	Unit	Description	Material	Capacity	Permit
EP-115	EU-13-422	Washer Feed Tank	Herbicide	7,500 gallons	NA

# **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the levels specified below.

There are no applicable emission limits for these emission units.

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

# **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

**Associated Equipment** 

Emission Unit	Emission Unit Description	Control Equipment	Rated Capacity	Construction Permit
EU-13-203	Step II Reactor A	CE-13-757: Condenser CE-13-503: Scrubber	1050 lb/hr	
EU-13-204	Step II Reactor B	CE-13-758: Condenser CE-13-503: Scrubber	1050 lb/hr	93-A-378-S3
EU-13-TK29-P1	CMA Surge Tank	CE-13-503: Scrubber	2100 lb/hr	75-A-576-55
EU-13-TK20-P1	5 <sup>th</sup> Bay Sump	CE-13-503: Scrubber	2100 lb/hr	

Raw Material/Fuel: Herbicide

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 93-A-378-S3

567 IAC 23.3(2)"d"

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.001 lb/hr

Authority for Requirement: DNR Construction Permit 93-A-378-S3

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 93-A-378-S3

567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 3.41 lb/hr

Authority for Requirement: DNR Construction Permit 93-A-378-S3

<sup>(1)</sup> An exceedance of the indicator opacity of "no visible emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Organic HAP

Emission Limit(s): 90% reduction or 20 ppmy<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 93-A-378-S3

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

Pollutant: HCl & CL<sub>2</sub>

Emission Limit(s): 94% reduction or 20 ppmy or 6.8 Mg/yr<sup>(1)</sup> Authority for Requirement: DNR Construction Permit 93-A-378-S3

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

(1) Emission limits for existing sources from 40 CFR §63.1362(b)(3). The 94% reduction or 20 ppmv limits apply to each process vent in the system. The 6.8 Mg/yr limit is for the sum of emissions from all process vents within a process.

# Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. Operation of the scrubber shall be monitored as required by 40 CFR §63.1366(b)(1)(ii).
- B. Operation of the reactor vent condensers shall be monitored as required by 40 CFR §63.1366(b)(1)(iii).

Authority for Requirement: DNR Construction Permit 93-A-378-S3

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

## **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredients and Subpart A: General Provisions.

Authority for Requirement: DNR Construction Permit 93-A-378-S3

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

<sup>(1)</sup> Emission limits for existing sources from 40 CFR §63.1362(b)(2)(iii) and 40 CFR §63.1362(b)(2)(iv)(A). The 90% reduction applies to the sum of all process vents within this process, excluding process vents that are subject to 40 CFR §63.1362(b)(2)(ii)). The 20 ppmv limit applies to each process vent in the system.

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 89

Stack Opening, (inches, dia.): 4 Exhaust Flow Rate (scfm): 50 Exhaust Temperature (°F): 85 Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 93-A-378-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

**Associated Equipment** 

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
	NII CI D	CE-13-484-P1: NH <sub>4</sub> Cl Recovery Cyclone			21-A-142
EU-13-483-P1	NH <sub>4</sub> Cl Recovery Process Steam	CE-13-499: NH <sub>4</sub> Cl Recovery Agglomeration Tower	NH <sub>4</sub> Cl	N/A	
	Dryer	CE-13-289: NH <sub>4</sub> Cl Recovery Venturi Scrubber			

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 21-A-142

567 IAC 23.3(2)"d"

Pollutant: PM2.5

Emission Limit(s): 0.14lb./hr.

Authority for Requirement: DNR Construction Permit 21-A-142

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.5 lb./hr.

Authority for Requirement: DNR Construction Permit 21-A-142

Pollutant: Particulate Matter

Emission Limit(s): 0.5 lb./hr., 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 21-A-142

567 IAC 23.3(2)"a"(1)

<sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 64

Stack Opening, (inches): 12 x 18 Exhaust Flow Rate (scfm): 2,508 Exhaust Temperature (°F): 145 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 21-A-142

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?

Facility Maintained Operation & Maintenance Plan Required?

Compliance Assurance Monitoring (CAM) Plan Required?

(Required for CE-13-484-P1, CE-13-499, & CE-13-289)

Yes □ No □

Yes □ No □

#### **NEW CAM PLAN**

# Compliance Assurance Monitoring (CAM) Plan NH4C1 Recovery Scrubber System EP 123

#### I. Emission Point

Emission Point: EP-123

Emission Unit: EU-13-483-P1: NH4C1 Recovery Process Dryer Control Equipment No: CE-13-289: NH4C1 Recovery Venturi Scrubber

CE-13-499: NH4C1 Recovery Agglomeration Tower

CE-13-484-P1: NH4C1 Recovery Cyclone

# **Applicable Requirements**

PM emission limit: 0.1 gr/dscf, 0.5 lb/hr.

Authority for Requirement: 567 IAC 23.3(2)"a"(1), and DNR Permit No. 21-A-142

PM10 emission limit: 0.5 lb/hr.

Authority for Requirement: DNR Permit No. 21-A-142

PM2.5 emission limit: 0.14 lb/hr.

Authority for Requirement: DNR Permit No. 21-A-142

## II. Monitoring Approach

# **Excursion from Compliance Indicators**

- An excursion occurs when the hourly average compliance indicator is outside of its defined acceptable indicator range. An excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.
- Corrective actions shall begin as soon as practical, but no later than eight hours from the observation of the excursion or equipment shall be shut down.

## **Indicators**

- Continuous scrubbing liquid flow:
  - Hourly average Venturi Scrubber spray nozzle flow
  - Hourly Average Agglomeration Tower spray nozzle flow
- Hourly average differential pressure drop across the Venturi Scrubber and Agglomeration Tower

# **Compliance Indicator Ranges**

- Venturi Scrubber spray nozzle flow Acceptable indicator range: equal to or greater than 38.3 gal/min while the NH<sub>4</sub>Cl Dryer is operating. Based on December 2021 compliance testing.
- Agglomeration Tower spray nozzle flow Acceptable indicator range: equal to or greater than 29.4 gal/min while the NH<sub>4</sub>Cl Dryer is operating. Based on December 2021 compliance testing.
- Differential pressure drop across the Venturi Scrubber and Agglomeration Tower Acceptable indicator range: equal to or greater than 21.1 inches water column while the NH<sub>4</sub>Cl Dryer is operating.

# **Monitoring Methods**

• Continuous Monitoring

Flow and differential pressure readings shall be monitored continuously using a continuous parameter monitoring system (CPMS) during operation of the unit. If any of the compliance indicators exceed the normal operating range, it will sound an audible alarm to notify operating personnel. At that time standard operating procedures shall be followed to return the indicator(s) to the normal operating range.

If the indicator(s) do not quickly return to the normal operating range, operations shall cease until the source of the deviation has been identified and corrected.

Bayer shall operate, inspect, and maintain the CPMS, according to the manufacturer's specifications and instructions or other Department approved written procedures that provide adequate assurance that the equipment would reasonably be expected to operate properly.

• Control Equipment Maintenance

Bayer shall operate, inspect, and maintain the control equipment (CE-13-484-P1, CE-13-499, and CE-13-289), according to the manufacturer's specifications and instructions or other Department approved written procedures that provide adequate assurance that the equipment would reasonably be expected to operate properly.

#### III. Performance Criteria

#### **Data Representativeness**

• Scrubbing liquid flow outside of the acceptable indicator ranges for the venturi scrubber or agglomeration tower may signify reduced scrubbing performance that may lead to an increase in particulate emissions.

• Differential pressure outside of the acceptable indicator range may signify reduced scrubbing performance that may lead to an increase in particulate emissions.

# **Record Keeping and Reporting (Verification of Operational Status)**

- Bayer shall maintain records of the following:
  - Scrubbing liquid flows for the venturi scrubber and agglomeration tower
  - Differential pressure readings
  - Required inspections and maintenance
  - Any excursions and corrective actions resulting from out-of-range compliance indicators and inspection observations
- Records will be kept for at least five years and be available upon request.

# **Quality Control**

- The control equipment shall be operated and maintained according to the manufacturer's recommendations.
- The flow instruments and pressure indicators will be operated and maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts will be kept.

# **Data Collection Procedures**

- Electronic records are kept of flow and pressure readings.
- Maintenance personnel record all maintenance/inspections performed on the control equipment and CPMS and actions resulting from the inspections.

Associated Equipment

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-13-514-1	Step III Reactors		Herbicide	184 MMlb/yr.	<b>-</b> 6 + 40 <b>-</b> 86
EU-13-514-2	A-Unit Process Off-Gas (POG)	CE-13-514: Step III Scrubber	Process Off-Gas	426 hrs/yr.	76-A-103-S6

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 76-A-103-S6

567 IAC 23.3(2)"d"

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.004 lb./hr.

Authority for Requirement: DNR Construction Permit 76-A-103-S6

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 76-A-103-S6

567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 8.15 lb/hr (A-Unit Vents w/out POG) Emission Limit(s): 25.5 lb/hr (Total A-Unit w/ POG)

Authority for Requirement: DNR Construction Permit 76-A-103-S6

<sup>(1)</sup> An exceedance of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Single HAP (HCl & CL<sub>2</sub>)/Total HAP: For those streams under the PAI MACT

Emission Limit(s): Organic HAP: Reduce uncontrolled emissions from each process vent

subject to 40 CFR 63.1362(b)(2)(ii)(A) by  $\geq 98\%$ ; OR to an outlet

concentration  $\leq 20$  ppmv.

<u>HCL/CL2</u>: Reduce combined HCL/CL2 for the sum of all subject vents by > 94%; OR total HCL/CL2 emissions shall not exceed 6.8 Mg/yr; OR reduce

HCL/CL2 emissions to an outlet concentration  $\leq 20$  ppmv.

Authority for Requirement: DNR Construction Permit 76-A-103-S6

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

# **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

# Process throughput:

- 1. The venting of process off gas to this scrubber shall not occur for more than 426 hours per twelve month rolling period, rolled monthly.
- 2. Monitoring of the operation of the scrubber associated with this emission point shall be performed in accordance with the requirements of 40 CFR 63.1366(b).

# Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- 1. At the end of each month, record the number of hours that process off gases were vented through this scrubber over the previous month.
- 2. At the end of each month, record the number of hours that process off gases were vented through this scrubber over the previous twelve (12) months.
- 3. All appropriate record keeping required by 40 CFR 63.1367(b) shall be maintained to demonstrate compliance with the requirements of the NESHAP.

Authority for Requirement: DNR Construction Permit 76-A-103-S6

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 89 Stack Opening, (inches, dia.): 12 Exhaust Flow Rate, (scfm): 136 Exhaust Temperature, (°F): 85

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 76-A-103-S6

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-FUG	Uncaptured A-Unit Emissions	Herbicide	NA	NA

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

# National Emission Standards for Hazardous Air Pollutants (NESHAP)

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

# Associated Equipment

Emission Unit	Emission Unit Description	ID Number	Step 1 Process Equipment	Control Equipment	Rated Capacity
		1-913	Finisher Condensate Receiver Tank "B"		184 MMlb/yr.
		2-188	Azo Vacuum System "A"		
		2-189	Waste Water Surge Tank Azo Vacuum System "B" Waste Water Surge Tank		
		1-888	Azo Vacuum System "C" Waste Water Surge Tank		
		2-142	Azo Still "A" Vacuum System Hotwell	CE-13-903: Packed Bed ScrubberCE- 13-1019: Packed Vent Line	
		2-149	Azo Still "B" Vacuum System Hotwell		
EV. 12 002	Process 1	1-842	Azo Still "C" Vacuum System Hotwell		
EU-13-903		13TK21	2nd Bay Sump Tank		
		13TK35	Drains Lift Tank		
		2-222	Azo Switch Tank "A"		
		2-223	Azo Switch Tank "B"		
		1-923	Azo Switch Tank "C"		
		2-109 Hot V	Hot Water Tank		
		2-166	Finisher Condensate Separator Tank		
		1-934	DEA Surge Tank		
		2-200	Refined Azo Surge Tank	7	
		2-205	Refined Azo Surge Tank		

Emission Unit	Emission Unit Description	Control Equipment	Rated Capacity
EU-13-116	Finisher Recycle Surge Tank	CE-13-903: Packed Bed	184 MMlb/yr.
EU-13-120	Crude Azo Surge Tank	Scrubber Scrubber	184 MMlb/yr.
EU-13-121	Crude Azo Charge Tank A	CE-13-1019:	92 MMlb/yr.
EU-13-821	Crude Azo Charge Tank B	Packed Vent Line	92 MMlb/yr.

Raw Material: Herbicide

Construction Permit: 82-A-042-S7

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 82-A-042-S7

567 IAC 23.3(2)"d"

(1) An exceedance of the indicator opacity of "no visible emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM

Emission Limit(s): 0.1 gr/scf

Authority for Requirement: DNR Construction Permit 82-A-042-S7

567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC's)

Emission Limit(s): 6.86 lb/hr, 30 ton/yr

Authority for Requirement: DNR Construction Permit 82-A-042-S7

#### **Operational Limits & Reporting/Record keeping Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall reduce uncontrolled organic HAP emissions from the sum of all process vents within this process by 90% or greater by weight, as required in 40 CFR 63.1362(b)(2)(iii).
- B. The owner or operator shall establish a minimum scrubber liquid flow rate or pressure drop as a site-specific operating parameter. The parametric levels shall be established using the appropriate method outlined in 40 CFR 63.1366(b)(3)(i)
- C. As required by 40 CFR 63.1367(a)(3), the owner or operator shall maintain the following records for each failure of an affected emission unit to meet the applicable emission standard under 40 CFR 63 Subpart MMM:
  - 1. Record the date, time and duration of each failure.
  - 2. Record and retain an estimate of the quantity of each regulated pollutant emitted over any emission standard as well as a description of the method used to estimate those emissions.
  - 3. Record actions taken to minimize emissions in accordance with 40 CFR 63.1360(e)(4) and any corrective actions taken to return the affected emission unit to its normal or usual manner of operation.
- D. By the existing source compliance date, the scrubber liquid flow rate or pressure drop shall be monitored a minimum of once every 15 minutes during the period in which it is controlling HAP

emissions, as required in 40 CFR 63.1366(b)(1)(ii).

E. The monitoring device shall be calibrated annually. It shall be certified by the manufacturer to the accuracy levels required by either 40 CFR 63.1366(b)(1)(ii)(A) or (B).

Authority for Requirement: DNR Construction Permit 82-A-042-S7

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

## **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 89 Stack Opening, (inches, dia.): 10 Exhaust Flow Rate, (scfm): 200 Exhaust Temperature, (°F): Ambient

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 82-A-042-S7

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🗵
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🗵
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🗵
Authority for Requirement: 567 IAC 22.108(3)	

**Associated Equipment** 

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
EU-13-854	NH <sub>4</sub> Cl Truck Silo	CE-13-852: Dust Collector	NH <sub>4</sub> Cl	75,030 lbs.	83-A-028-S3

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 83-A-028-S3

567 IAC 23.3(2)"d"

(!) An exceedance of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.087 lb./hr.

Authority for Requirement: DNR Construction Permit 83-A-028-S3

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.087 lb./hr.

Authority for Requirement: DNR Construction Permit 83-A-028-S3

Pollutant: Particulate Matter

Emission Limit(s): 0.1 lb./hr., 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 83-A-028-S3

567 IAC 23.3(2)"a"

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 50 Stack Opening, (inches, dia.): 10 Exhaust Flow Rate (scfm): 1,800 Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 83-A-028-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🛛 No 🗌

# Compliance Assurance Monitoring (CAM) Plan NH4Cl Truck Silo Dust Collector EP-198

#### I. Emission Point

Emission Point: 198

Emission Unit: EU-13-854: NH4Cl Truck Silo Dust Collector

Control Equipment No: CE-13-852: Dust Collector

#### **Applicable Requirements**

PM<sub>2.5</sub> emission limit: 0.087 lb./hr. PM<sub>10</sub> emission limit 0.087 lb./hr.

PM emission limit: 0.1 gr/dscf, 0.1 lb/hrAuthority for Requirement: 567 IAC 23.3(2)"a" and

IDNR Permit No 83-A-028-S3

#### II. Monitoring Approach

#### **Excursion from Compliance Indicators**

- An <u>excursion</u> occurs when an observed compliance indicator is outside of its defined acceptable indicator range for longer than five (5) minutes. An excursion does not necessarily indicate a violation of applicable permit terms, conditions, and/or requirements. However, an excursion is a deviation that must be reported in the Semi-Annual Monitoring Report and Annual Compliance Certification Report.
- Corrective actions shall begin as soon as practicable, but no later than eight hours from the observation of the excursion or equipment will be shutdown.

#### **Indicator**

• Visible emission observations.

#### **Compliance Indicator Ranges**

• Visible Emissions: No visible emissions

#### **Monitoring Methods**

• Daily

Visible emissions shall be observed at least once per day while the silo is receiving material to ensure that no visible emissions are occurring. If visible emissions are observed for 5 minutes, this would be an exceedance, and corrective action will be initiated as soon as possible, but no later than 8 hours from the observation. If visible emissions can not be corrected within 8 hours from the observation, the dust collector must be shut down until it can be corrected. A written record of the observations and any action resulting from the observations will be retained for five years.

#### Semiannually

- The control device and ductwork shall be externally inspected semiannually for visual signs of leaks or cracks. The check and any actions resulting from the inspection shall be documented and retained for five years. If leaks or abnormal conditions are detected, corrective action shall be taken as soon as possible but no later than 8 hours from the observation.
- o The cleaning cycle and the hopper functions of the dust collector shall be checked semiannually. Verification of proper cleaning cycle will consist of verifying proper cleaning sequence valve operation and the air delivery system for proper operation. The check and any actions resulting from the inspection will be documented and retained for five years. If leaks or abnormal conditions are detected, corrective action shall be taken as soon as possible but no later than 8 hours from the observation.

## Annually

The internal structure shall be inspected once per year for pluggage, leaks, corrosion or failures. The check and any actions resulting from the inspection will be documented and retained for five years. If leaks or abnormal conditions are detected, measures for remediation shall be implemented before returning the dust collector to service.

#### III. Performance Criteria

#### **Data Representativeness**

An observation of visible emissions could indicate a decrease in the performance of the dust collector and an increase in particulate emissions.

## **Record Keeping and Reporting (Verification of Operational Status)**

- Bayer shall maintain records of the following:
  - o Daily visible emissions evaluations and any actions resulting from observations.
  - o Semiannual and annual required inspections and maintenance.
  - Record any excursions and corrective actions resulting from compliance indicators and inspections and maintenance.
- Records will be kept for at least five years and be available upon request.

#### **Quality Control**

- The filter equipment shall be operated and maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts will be kept, including a complete replacement set of filters.

## **Data Collection Procedures**

- Manual log entries are made to document the daily shift checks for visible emissions.
- Maintenance personnel record all maintenance/inspections performed on the dust collector and actions resulting from the inspections.

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-TK31	Formalin Storage Tank	Formalin	50,000 gallons	99-A-879-S2

## **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

#### Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. Materials stored in this tank shall have a maximum true vapor pressure, as defined in 40 CFR 60.111b less than 3.5kPa.
- B. The owner/operator shall maintain safety data sheets (SDS) or other documentation of the maximum true vapor pressure of all materials stored in this tank.

Authority for Requirement: DNR Construction Permit 99-A-879-S2

## **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 56

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 140 Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 99-A-879-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒ Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required?

Yes No X

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-TK46	Butanol Storage Tank	Butanol	30,000 gallons	99-A-881-S1

## **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

#### Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

There are no applicable operational limits or reporting/record keeping requirements for this unit.

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 40

Stack Opening, (inches, dia.): 4

Exhaust Flow Rate (scfm): Displacement

Exhaust Temperature (°F): 68 Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 99-A-881-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required?

Yes 
No

**Associated Equipment** 

Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-13-782	Methanol Storage Tank	Internal Floating Roof CE 13-782-IFR	Methanol	32,000 gallons	92-A-107-S2

#### **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

## Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall equip this tank with an internal floating roof according to the requirements of 40 CFR §63.1062.
- B. The owner or operator shall comply with the applicable requirements of 40 CFR §63.2470.
- C. The owner or operator shall comply with the inspection and ongoing compliance requirements of 40 CFR §63.1063(c)(1).
- D. The owner or operator shall submit reports and keep records as required by 40 CFR §63.2520 and §63.2525.
- E. A record of all materials stored in this shall be maintained. An MSDS shall be kept for all materials stored.

Authority for Requirement: DNR Construction Permit 92-A-107-S2

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart FFFF: National Emission Standards for Hazardous Air Pollutants for Source Category: Miscellaneous Organic Chemical Manufacturing, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart FFFF

567 IAC 23.1(4)"cf"

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 38

Stack Opening, (inches, dia.): 2

Exhaust Flow Rate (acfm): Working and breathing losses

Exhaust Temperature (°F): Ambient

Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 92-A-107-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🔀
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🗵
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🔀

**Emission Point ID Numbers: EP-280 and EP-281** 

**Associated Equipment** 

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EP-280	EU-13-940	Technical Storage Tank A	Herbicide	250,000 gallons	95-A-089-S2
EP-281	EU-13-943	Technical Storage Tank B	Herbicide	250,000 gallons	95-A-090-S2

## **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the levels specified below.

There are no applicable emission limits for these emission units.

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

## Process throughput:

1. Technical Storage Tanks "A" and "B" shall not be used to store any material that is more volatile than Alachlor Technical (0.02 mm Hg at 100°C).

## Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. The owner or operator shall maintain a Safety Data Sheet (SDS) of any material stored in Technical Storage Tanks "A" and "B".

Authority for Requirement: DNR Construction Permits 95-A-089-S2 and 95-A-090-S2

#### **Emission Point Characteristics**

Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 51

Stack Opening, (inches, dia.): 8

Exhaust Flow Rate (scfm): Displacement when filling

Exhaust Temperature (°F): 150 Discharge Style: Downward

Authority for Requirement: DNR Construction Permits 95-A-089-S2 and 95-A-090-S2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?

Yes □ No ☑

Facility Maintained Operation & Maintenance Plan Required?

Yes □ No ☑

Compliance Assurance Monitoring (CAM) Plan Required?

Yes □ No ☑

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-946	Technical Storage Tank "C"	Herbicide	250,000 gallons	95-A-506

## **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

## **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

- 1. The storage vessel shall not store a liquid with a maximum true vapor pressure greater than 0.010 mmHg.
- 2. The storage tank shall be insulated.

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- 1. The dimension of the storage vessel and an analysis showing the capacity of the storage vessel shall be kept for the life of the emission source.
- 2. The VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

Authority for Requirement: DNR Construction Permit 95-A-506

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🔀
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22 108(3)	

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-407	Dehydrator Hotwell	Herbicide	490 gallons	00-A-758-S1

## **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

#### Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- A. The owner or operator shall follow the applicable requirements of 40 CFR §63.1362 and 40 CFR §63.1366.
- B. The owner or operator shall submit reports and keep records as required by 40 CFR §63.1367 and 40 CFR §63.1368.

Authority for Requirement: DNR Construction Permit 00-A-758-S1

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category:

Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

## **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.* 

Stack Height, (ft, from the ground): 0.2

Stack Opening, (inches, dia.): 2

Exhaust Flow Rate (scfm): Natural Draft

Exhaust Temperature (°F): 150 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 00-A-758-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes No No
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🗵
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🗵

**Associated Equipment** 

Emission	Emission Unit			Construction
Unit	Description			Permit
EU-13-TK37	TEA Storage Tank	Trimethylamine	9,064 gallons	01-A-635

#### **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

## **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

There are no applicable operational limits or requirements for this emission unit.

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category:

Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.* 

Stack Height, (ft, from the ground): 25.5

Stack Opening, (inches, dia.): 2 Exhaust Flow Rate (scfm): 20 Exhaust Temperature (°F): Ambient Discharge Style: Vertical Obstructed

Authority for Requirement: DNR Construction Permit 01-A-635

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☐ No ☒

#### **Emission Point ID Numbers: EP-364 and EP-365**

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
	EU-13-393	Dehydrator A		Herbicide	46 MMlb/yr.	
EP-364	EU-13-394	Dehydrator B	CE-13-1007: Condenser	Herbicide	46 MMlb/yr.	01-A-1066
EP-365	EU-13-425	Finished Goods Receiver	CE-13-1011: Condenser	Herbicide		01-A-1067
	EU-13-426	Finished Goods Receiver		Herbicide	46 MMlb/yr.	

#### **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the levels specified below.

There are no applicable emission limits for these emission units.

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

## National Emission Standards for Hazardous Air Pollutants (NESHAP)

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Emission Point Characteristics**

Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 66 Stack Opening, (inches, dia.): 1.5 Exhaust Flow Rate (acfm): 7 Exhaust Temperature (°F): 130 Discharge Style: Downward

Authority for Requirement: DNR Construction Permits 01-A-1066 and 01-A-1067

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request

either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☐ No ☒

**Emission Point ID Numbers: EP-377 and EP-378** 

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EP-377	EU-13-TK23	East 20% Ammonium Chlorides Tank	Herbicide	25,000 gallons	02-A-753-S1
EP-378	EU-13-TK22	West 20% Ammonium Chlorides Tank	Herbicide	25,000 gallons	02-A-754-S1

#### **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from these emission points shall not exceed the levels specified below.

There are no applicable emission limits for these emission units.

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

- 1. The organic HAP emissions from the process vents on the process unit that this tank belongs shall comply with the standards in 40 CFR §63.1362.
- 2. Bayer CropScience LP shall comply with standards for equipment leaks as specified in 40 CFR Part 63 §63.1363.

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- 1. Record and comply with all reporting and recordkeeping requirements as specified in 40 CFR Part 63 Subpart MMM, specifically §63.1363, §63.1363(g), §63.1367, and §63.1368.
- 2. Bayer CropScience LP shall comply with monitoring and inspection requirements as specified in 40 CFR Part 63 Subpart MMM, specifically §63.1363 and §63.1366.

Authority for Requirement: DNR Construction Permits 02-A-753-S1 and 02-A-754-S1

40 CFR 63 Subpart MMM 567 IAC 23.1(4)"bm"

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Emission Point Characteristics**

Each emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 33 Stack Opening, (inches, dia.): 12.5

Exhaust Flow Rate (scfm): Working/Breathing Loss

Exhaust Temperature (°F): 150 Discharge Style: Downward

Authority for Requirement: DNR Construction Permits 02-A-753-S1 and 02-A-754-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes No No
Facility Maintained Operation & Maintenance Plan Required?	Yes ☐ No ⊠
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🗵

Associated Equipment

Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EU-13-365	Resin Column Settling Tank	Herbicide	3,130 gallons	06 A 266 C1
EU-13-381	Resin Column Feed Tank	Herbicide	2,115 gallons	06-A-366-S1

## **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for these emission units.

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

- 1. The organic HAP emissions from the process vents on the process unit that this tank belongs shall comply with the standards in 40 CFR §63.1362.
- 2. Bayer CropScience LP shall comply with standards for equipment leaks as specified in 40 CFR Part 63 §63.1363.

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- 1. Record and comply with all reporting and recordkeeping requirements as specified in 40 CFR Part 63 Subpart MMM, specifically §63.1363, §63.1363(g), §63.1367, and §63.1368.
- 2. Bayer CropScience LP shall comply with monitoring and inspection requirements as specified in 40 CFR Part 63 Subpart MMM, specifically §63.1363 and §63.1366.

Authority for Requirement: DNR Construction Permit 06-A-366-S1 567 IAC 23.1(4)"bm"

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.* 

Stack Height, (ft, from the ground): 0.5

Stack Opening, (inches, dia.): 3

Exhaust Flow Rate (scfm): Working/Breathing Loss

Exhaust Temperature (°F): 150 Discharge Style: Horizontal

Authority for Requirement: DNR Construction Permit 06-A-366-S1

Facility Maintained Operation & Maintenance Plan Required?

Compliance Assurance Monitoring (CAM) Plan Required?

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Yes No No Agency Approved Operation & Maintenance Plan Required?

Yes No No

Authority for Requirement: 567 IAC 22.108(3)

Yes 🗌 No 🖂

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-377	Water Collection Tank	Herbicide	2,564 gallons	NA

## **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

## National Emission Standards for Hazardous Air Pollutants (NESHAP)

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-13-480	Ammonium Chloride Centrifuge	Herbicide	184 MMlb/yr.	02-A-869

## **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 02-A-869

567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 02-A-869

567 IAC 23.3(2)"a"

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### National Emission Standards for Hazardous Air Pollutants (NESHAP)

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

<sup>(1)</sup> An exceedance of the indicator opacity of "No Visible Emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 64

Stack Opening, (inches, dia.): 4 Exhaust Flow Rate (scfm): 10.5 Exhaust Temperature (°F): 140 Discharge Style: Downward

Authority for Requirement: DNR Construction Permit 02-A-869

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

Emission Point ID Numbers: EP-397A, EP-397B, EP-397C

Associated Equipment

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EP-397A	EU-13-1037	A-Unit CWT East	Water	4,000 gallons/min.	12-A-348-S1
EP-397B	EU-13-1038	A-Unit CWT Center	Water	4,000 gallons/min.	12-A-349-S1
EP-397C	EU-13-1039	A-Unit CWT West	Water	4,000 gallons/min.	12-A-350-S1

Control Equipment: Mist Eliminator (Drift loss 0.005%)

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40% (1)

Authority for Requirement: DNR Construction Permits 12-A-348-S1, 12-A-349-S1, & 12-A-350-S1

567 IAC 23.3(2)"d"

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 0.187 lb./hr.

Authority for Requirement: DNR Construction Permits 12-A-348-S1, 12-A-349-S1, & 12-A-350-S1

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.187 lb./hr.

Authority for Requirement: DNR Construction Permits 12-A-348-S1, 12-A-349-S1, & 12-A-350-S1

Pollutant: Particulate Matter

Emission Limit(s): 0.187 lb./hr., 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 12-A-348-S1, 12-A-349-S1, & 12-A-350-S1

567 IAC 23.3(2)"a"

#### Operational Limits & Reporting/Record keeping Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

61

<sup>(1)</sup> An exceedance of the indicator opacity of No Visible Emissions will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).

- 1. The total dissolved solids (TDS) concentration in the cooling water shall not exceed a daily average of 1,870 parts per million by weight (1,870 mg/L) which is equivalent to a conductivity of 2,200 mmhos. In the event that the continuous conductivity sampling is not available, the TDS concentration in the cooling water shall not exceed 1,870 parts per million by weight (1,870 mg/L) per any single sampling event.
- 2. The facility shall utilize a continuous conductivity meter for direct measurement of TDS concentrations. For measurement purposes it shall be assumed that 85% of conductivity measured in mmhos is equivalent to TDS in parts per million (ppm).
- 3. In the event that the continuous conductivity meter is offline during any given month, the following procedures shall govern the occurrence of missing monitoring data during the given time period, the following steps for the substitution of missing data:
  - A. If the monitor has operated for more than 95% of the time during a given monthly sampling period, the facility shall average the sample before and after the missing data point.
  - B. If the monitor has operated for less than 95% of the time during a given monthly sampling period, then a TDS sample shall be taken as a substitute for the monitoring data for that month.
- 4. The owner or operator shall develop an operating and maintenance plan for each Cooling Tower (EU 13-1037, EU 13-1038, EU 13-1039), including a preventative maintenance schedule that is based on manufacturer's instructions for routine and long-term maintenance modified for site-specific considerations, as necessary.
- 5. The owner or operator shall properly operate and maintain equipment to monitor the conductivity for each Cooling Tower (EU 13-1037, EU 13-1038, EU 13-1039). The monitoring device(s) and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals or per written facility specific operation and maintenance plan.
- 6. The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of each Cooling Tower (EU 13-1037, EU 13-1038, EU 13-1039) and the associated monitoring device(s).
- 7. The owner or operator shall not use additives in cooling water associated with Cooling Towers (EU 13-1037, EU 13-1038, EU 13-1039) that contain chromium compounds.
- 8. The owner or operator shall retain the safety data sheets (SDS) of all additives used in cooling water associated with Cooling Towers (EU 13-1037, EU 13-1038, EU 13-1039).

Authority for Requirement: DNR Construction Permits 12-A-348-S1, 12-A-349-S1, & 12-A-350-S1

#### **Emission Point Characteristics**

Each emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 23.3 Stack Opening, (inches, dia.): 164.63 Exhaust Flow Rate (scfm): 313,685 Exhaust Temperature (°F): 81

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permits 12-A-348-S1, 12-A-349-S1, & 12-A-350-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with

62

changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?

Yes □ No ☑

Facility Maintained Operation & Maintenance Plan Required?

Yes □ No ☑

Compliance Assurance Monitoring (CAM) Plan Required?

Yes □ No ☑

# **Equipment List**

# **UNIT SERVICES**

Emission Point Number	Emission Unit Number	Emission Unit Description	DNR Construction Permit Number
EP-21	EU-1734-101	Boiler #5	92-A-114-S1
EP-33	EU-2691-101-1	Boiler #6	76-A-265-S4
EP-45	EU-2691-100-1	Boiler #7	76-A-161-S4
EP-129	EU-5-FUG-AGWT	Uncaptured Ag Wastewater Treatment Plant Emissions	NA
EP-195	EU-3819-1-115-4	Boiler #8	82-A-092-P12
EP-324	EU-FS-01	Gasoline Storage Tank	97-A-753
EP-325	EU-FS-02	Diesel Fuel Storage Tank	97-A-754
EP-390	EU-15-CNP	Trim Pit	03-A-695-S1
EP-403	EU-02-0161	Emergency Generator	10-A-424
EP-410	EU-5-203	#1 East Diesel Pump	NA
EP-411	EU-5-304	#1 West Diesel Pump	NA
EP-412	EU-5-0325	#3 Emergency Fire Water Pump West	NA
EP-413	EU-5-0328	#3 Emergency Fire Water Pump East	NA
EP-414	EU-2691-03-100	#2 Emergency Fire Water Pump South	NA
EP-415	EU-2691-03-101	#2 Emergency Fire Water Pump North	NA
EP-416	EU-ECC-GEN-1	Emergency Control Center Generator	NA
EP-421	EU-CB-1	Change Building Boiler #1	NA
EP-426	EU-TP-P1	Trim Pit Diesel Motor	NA

#### Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-1734-101	Boiler #5	Natural Gas	72.9 MMBtu/hr	92-A-114-S1

## **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 92-A-114-S1

567 IAC 23.3(2)"d"

(1) An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 1.11 lb./hr.

Authority for Requirement: DNR Construction Permit 92-A-114-S1

Pollutant: Particulate Matter Emission Limit(s): 0.8 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

1. This boiler shall utilize natural gas as the only fuel of use.

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. The owner or operator shall keep records of conducted maintenance for the boiler and must, to the extent practicable, maintain and operate the boiler in a manner consistent with good air pollution control practice for minimizing emissions.

Authority for Requirement: DNR Construction Permit 92-A-114-S1

#### **NESHAP:**

This source is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft., from the ground): 41 Stack Opening, (inches, dia.): 42 Exhaust Flow Rate (scfm): 16,026 Exhaust Temperature (°F): 360

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 92-A-114-S1

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

Authority for Requirement: 567 IAC 22.108(3)

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-2691-101-1	Boiler #6	Natural Gas	72.9 MMBtu/hr.	76-A-265-S4

## **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 76-A-254-S4

567 IAC 23.3(2)"d"

(1) An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 1.11 lb./hr.

Authority for Requirement: DNR Construction Permit 76-A-265-S4

Pollutant: PM<sub>10</sub>

Emission Limit(s): 5.0 lb/hr

Authority for Requirement: DNR Construction Permit 76-A-265-S4

Pollutant: Particulate Matter Emission Limit(s): 0.8 lb/MMBtu

Authority for Requirement: DNR Construction Permit 76-A-265-S4

567 IAC 23.3(2)"b"

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

1. This boiler shall utilize natural gas as the only fuel of use.

## Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

67

1. The owner or operator shall keep records of conducted maintenance for the boiler and must, to the extent practicable, maintain and operate the boiler in a manner consistent with good air pollution control practice for minimizing emissions.

Authority for Requirement: Construction Permit 76-A-265-S4

#### **NESHAP:**

This source is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 82 Stack Opening, (inches, dia.): 42.5 Exhaust Flow Rate (scfm): 20,356 Exhaust Temperature (°F): 385

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 76-A-265-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🗵

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-2691-100-1	Boiler #7	Natural Gas	123.5 MMBtu/hr.	76-A-161-S4

## **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %<sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 76-A-161-S4

567 IAC 23.3(2)"d"

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 1.88 lb./hr.

Authority for Requirement: DNR Construction Permit 76-A-161-S4

Pollutant: PM<sub>10</sub>

Emission Limit(s): 10.0 lb/hr

Authority for Requirement: DNR Construction Permit 76-A-161-S4

Pollutant: Particulate Matter Emission Limit(s): 0.8 lb/MMBtu

Authority for Requirement: DNR Construction Permit 76-A-161-S4

567 IAC 23.3(2)"b"

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

1. This boiler shall utilize natural gas as the only fuel of use.

<sup>(1)</sup> An exceedance of the indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. The owner or operator shall keep a maintenance plan and records of conducted maintenance for the boiler and must, to the extent practicable, maintain and operate the boiler in a manner consistent with good air pollution control practice for minimizing emissions.

Authority for Requirement: DNR Construction Permit 76-A-161-S4

#### **NESHAP:**

This source is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters. Authority for Requirement: 40 CFR 63 Subpart DDDDD

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 80 Stack Opening, (inches, dia.): 54 Exhaust Flow Rate (scfm): 29,648 Exhaust Temperature (°F): 355 Discharge Style: Vertical Unobstructed

Authority for Requirement: 567 IAC 22.108(3)

Authority for Requirement: DNR Construction Permit 76-A-161-S4

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

es 🗌 No 🖂
es 🗌 No 🖂
es □ No ⊠
,

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-5-FUG-AGWT	Uncaptured Ag Wastewater Treatment Plant Emissions	Wastewater	NA	NA

## **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

## **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### **National Emission Standards for Hazardous Air Pollutants (NESHAP)**

This emission unit is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart MMM: National Emission Standards for Hazardous Air Pollutants for Source Category: Pesticide Active Ingredient Production, and Subpart A: General Provisions.

Authority for Requirement: 40 CFR 63 Subpart MMM

567 IAC 23.1(4)"bm"

#### **Monitoring Requirements**

T	'	,	$C_{i}$		• , 1 1	1	1 •	, ,	1	•, •		1 . , 1	1	1
11	10 MWN0r/	aneratar c	it ti	11C	equipment shal	I compl	12 1427 1	n ti	10 m	anitaring	rominromonts	listod	n.	21011
	ic civilici	operaior c	'	us i	campineni snai	ı compi	vviii	$\iota$ $\iota$ $\iota$	$\iota \cup \iota \iota \iota \iota$	United the	I CHUII CIIICIIIS	usica	$\nu$	LUVV.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22.108(3)	

**Associated Equipment** 

Emission	Emission Unit	Control	Raw	Rated	Construction
Unit	Description	Equipment	Material	Capacity	Permit
EU-3819-1-115-4	Boiler #8	Low NOx burners	Natural Gas	147.6 MMBtu/hr	82-A-092-P12

#### **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity Emission Limit(s): 20%

Authority for Requirement: DNR Construction Permit 82-A-092-P12

Pollutant: PM<sub>2.5</sub>

Emission Limit(s): 2.24 lb./hr.

Authority for Requirement: DNR Construction Permit 82-A-092-P12

Pollutant: PM<sub>10</sub>

Emission Limit(s): 2.24 lb./hr.

Authority for Requirement: DNR Construction Permit 82-A-092-P12

Pollutant: Particulate Matter

Emission Limit(s): 0.03 lb./MMBtu, 7.5 lb./hr.

Authority for Requirement: DNR Construction Permit 82-A-092-P12

Pollutant: Sulfur Dioxide (SO2)

Emission Limit(s): 1.95 lb./MMBtu, 75.0 lb./hr.

Authority for Requirement: DNR Construction Permit 82-A-092-P12

Pollutant: Nitrogen Oxides (NOx)

Emission Limit(s): 0.60 lb./MMBtu, 90.0 lb./hr.

Authority for Requirement: DNR Construction Permit 82-A-092-P12

## **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

A. The boiler is limited to firing on natural gas only.

Authority for Requirement: DNR Construction Permit 82-A-092-P12

#### **NESHAP:**

This source is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

## **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 80 Stack Opening, (inches, dia.): 54 Exhaust Flow Rate (scfm): 46,827 Exhaust Temperature (°F): 375

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 82-A-092-P12

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22.108(3)	

Associated Equipment

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-FS-01	Gasoline Storage Tank	Gasoline	4,000 gallons	97-A-753

#### **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

# **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

# Process throughput:

1. The usage of gasoline cannot exceed 200,000 gallons per year from this source.

# Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the date and amount each time this tank is filled.

Authority for Requirement: DNR Construction Permit 97-A-753

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 11

Stack Opening, (inches, dia.): 3 Exhaust Flow Rate (acfm): 1

Exhaust Temperature (°F): Ambient Discharge Style: Vertical with rain cap

Authority for Requirement: DNR Construction Permit 97-A-753

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

<sup>\*</sup> The discharge for this point is vertical w/ a rain cap

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-FS-02	Diesel Fuel Storage Tank	Diesel Fuel	2,000 gallons	97-A-754

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

There are no applicable emission limits for this emission unit.

# **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

# Process throughput:

1. The usage of diesel fuel cannot exceed 100,000 gallons per year from this source.

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. Record the date and amount each time this tank is filled. Authority for Requirement: DNR Construction Permit 97-A-754

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 11

Stack Opening, (inches, dia.): 3 Exhaust Flow Rate (acfm): 1

Exhaust Temperature (°F): Ambient

Discharge Style: NA\*

Authority for Requirement: DNR Construction Permit 97-A-754

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🔀

Facility Maintained Operation & Maintenance Plan Required? Yes No 🖂

Compliance Assurance Monitoring (CAM) Plan Required? Yes ☐ No ☒

<sup>\*</sup> The discharge for this emission point is vertical w/ a rain cap

Associated Equipment

Emission	Emission Unit Description	Raw	Rated	Construction
Unit		Material	Capacity	Permit
EU-15-CNP	Trim Pit	Wastewater	72,874 gallons	03-A-695-S1

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile	Organic	Compounds	(VOC	C's)
---------------------	---------	-----------	------	------

Emission Limit(s): 0.25 tons/yr.

Authority for Requirement: DNR Construction Permit 03-A-695-S1

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🗵
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🗵
Compliance Assurance Monitoring (CAM) Plan Required?	Yes No E

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-02-0161	Emergency Generator	Diesel Fuel	36.6 gal/hr. 762 bhp	10-A-424

## **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40%<sup>(1),(2)</sup>

Authority for Requirement: DNR Construction Permit 10-A-424

567 IAC 23.3(2)"d"

(2) The facility shall also meet the emission standards of 40 CFR §89.113 per 40 CFR §60.4205(b).

Pollutant: PM<sub>10</sub>

Emission Limit(s): 0.32 lb/hr.

Authority for Requirement: DNR Construction Permit 10-A-424

Pollutant: Particulate Matter Emission Limit(s): 0.32 lb/hr.

Authority for Requirement: DNR Construction Permit 10-A-424

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 0.01 lb/hr., 2.5 lb/MMBtu

Authority for Requirement: DNR Construction Permit 10-A-424

567 IAC 23.3(3)

Pollutant: Nitrogen Oxides (NO<sub>x</sub>) Emission Limit(s): 12.02 lb/hr.

Authority for Requirement: DNR Construction Permit 10-A-424

Pollutant: Carbon Monoxide (CO) Emission Limit(s): 4.69 lb/hr.

Authority for Requirement: DNR Construction Permit 10-A-424

<sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

#### **NSPS and NESHAP Emission Limits**

Pollutant	Limit	Reference (567 IAC)
Particulate Matter (PM) (Filterable Only)	0.20 g/kW-hr	40 CFR §60.4205(b) NSPS Subpart IIII 567 IAC 23.1(2)"yyy"
Nitrogen Oxides (NO <sub>X</sub> ) + Non-Methane Hydrocarbons (NMHC)	6.4 g/kW-hr	40 CFR §60. 4205(b) NSPS Subpart IIII 567 IAC 23.1(2)"yyy"
Carbon Monoxide (CO)	3.5 g/kW-hr	40 CFR §60. 4205(b) NSPS Subpart IIII 567 IAC 23.1(2)"yyy"
Fuel Sulfur Requirements beginning 10/01/2007	Max 500 ppm Sulfur and Min Cetane Index = 40 or Max Aromatic content = 35%vol	40 CFR§80.510(a)
Fuel Sulfur Requirements beginning 10/01/2010	Max 15 ppm Sulfur and Min Cetane Index = 40 or Max Aromatic content = 35%vol	40 CFR§80.510(b)

## **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

# Hours of operation:

1. The owner or operator shall not operate the Emergency Generator EU-02-0161 more than 100 hours per rolling twelve-month period. In addition, the facility shall comply with the requirements of 40 CFR§60.4211(e).

# Process throughput:

- 1. Per 40 CFR§60.4211, for the Emergency Generator EU-02-0161, the owner or operator must purchase an engine certified to the emissions standards in §60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
- 2. The owner or operator of the Emergency Generator EU-02-0161 must operate and maintain the generator according to the manufacture's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. In addition, the owner or operator may only change those settings that are permitted by the manufacturer.
- 3. The owner or operator shall only operate the Emergency Generator EU-02-0161 in emergency situations or for routine maintenance and testing, according to the requirements in 40 CFR§60.4211.
- 4. The Emergency Generator EU-02-0161 shall be limited to using #2 diesel fuel with a maximum sulfur content of 0.0015% by weight.
- 5. Beginning October 1, 2010, diesel fuel fired in Emergency Generator EU-02-0161 shall be limited to a maximum sulfur content of 15 ppm and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume, per 40 CFR §80.510(b).

6. Per 40 CFR§60.4207, owners and operators of pre-2011 model year diesel generators subject to NSPS Subpart IIII may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of 40 CFR§80.510(a) or CFR§80.510(b) beyond the dates required, for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

- 1. The owner or operator of Emergency Generator EU-02-0161 shall install a non-resettable hour meter prior to startup of the engine per 40 CFR §60.4209.
- 2. Per 40 CFR§60.4214, the owner or operator shall record the time of operation of the Emergency Generator EU-02-0161 and the reason the engine was in operation during that time, including information to show compliance with the requirements of 40 CFR§60.4211(e).
- 3. Each month, the owner or operator shall record the total hours of operation for Emergency Generator EU-02-0161, and calculate and record rolling twelve-month totals.
- 4. The owner or operator shall maintain records of the sulfur content of the fuel oil combusted in Emergency Generator EU-02-0161.
- 5. The owner or operator Emergency Generator EU-02-0161 shall follow the notification, reporting, and recordkeeping requirements of 40 CFR §60.4214(b).

Authority for Requirement: DNR Construction Permit 10-A-424

40 CFR 60 Subpart IIII 567 IAC 23.1(2)"yyy"

#### NSPS Applicability:

1. This emission unit is subject to 40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. See Appendix A for web link.

Authority for Requirement: DNR Construction Permit 10-A-424

40 CFR 60 Subpart IIII 567 IAC 23.1(2)"yyy"

#### NESHAP Applicability:

1. This emission point is subject to 40 CFR 63 Subpart ZZZZ - Stationary Reciprocating Internal Combustion Engines. See Appendix A for web link.

Authority for Requirement: DNR Construction Permit 10-A-424

40 CFR 63 Subpart ZZZZ 567 IAC 23.1(4)"cz"

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 10.33

Stack Opening, (inches, dia.): 9 Exhaust Flow Rate (acfm): 3,846 Exhaust Temperature (°F): 941

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 10-A-424

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?

Yes □ No ☑

Facility Maintained Operation & Maintenance Plan Required?

Yes □ No ☑

Compliance Assurance Monitoring (CAM) Plan Required?

Yes □ No ☑

#### **Emission Point ID Numbers: EP-410 and EP-411**

**Associated Equipment** 

Emission Point	Emission Unit	Emission Unit Description	Raw Material	Rated Capacity	Construction Permit
EP-410	EU-5-203	#1 East Diesel Pump	Diesel Fuel	282 bhp	NA
EP-411	EU-5-304	#1 West Diesel Pump	Diesel Fuel	282 bhp	NA

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(3)"b"

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

## Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

#### **NSPS and NESHAP**

This emission units are subject to New Source Performance Standards (NSPS) Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, and also subject to Subpart A: General Provisions

Authority for Requirements: 40 CFR 60 Subpart IIII 567 IAC 23.1(2)"yyy"

These emergency engines are subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(2)(ii) these compression ignition emergency engines, located at a major source, are new stationary RICE as they were constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(6), this emergency engines must meet the requirements of subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII for compression ignition engines. No further requirements apply for this emergency engines under subpart ZZZZ.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

## **NSPS Subpart IIII Requirements**

#### **Emission Standards:**

According to 40 CFR 60.4205(c) and Table 4 to Subpart IIII, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM
$225 \le kW < 450$ $(300 \le HP < 600)$	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)

#### Fuel Requirements:

You must use diesel fuel that has a maximum sulfur content of 15 ppm by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 1090.305.

#### Compliance Requirements:

- 1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
  - a. Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
  - b. Changing only those emission-related settings that are permitted by the manufacturer; and
  - c. Meeting the requirements of 40 CFR 1068, as they apply to you.

- 2. You must demonstrate compliance with the applicable emission standards according to one of the following methods. 40 CFR 60.4211(b).
  - a. Purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR 1039 and 40 CFR 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications.
  - b. Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
  - c. Keeping records of engine manufacturer data indicating compliance with the standards.
  - d. Keeping records of control device vendor data indicating compliance with the standards.
  - e. Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.
- 3. If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
$100 \le HP \le 500$	Within 1 year of engine startup, or non-permitted action (1)	Not required

<sup>(1)</sup> Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

# Operating and Recordkeeping Requirements

- 1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 40.4209(a)).
- 2. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).
- 3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.

The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂
Authority for Requirement: 567 IAC 22.108(3)	

**Emission Point ID Numbers: EP-412 & EP-413** 

Associated Equipment

Emission		Emission Unit	Raw	Rated	Construction
Point	Unit	Description	Material	Capacity	Permit
EP-412	EU-5-0325	#3 Emergency Fire Water Pump West	Diesel Fuel	300 bhp	NA
EP-413	EU-5-0328	#3 Emergency Fire Water Pump East	Diesel Fuel	300 bhp	NA

# **Applicable Requirements**

## Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

2. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

#### **NSPS and NESHAP**

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this compression ignition emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

# Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

- 1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
- 2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
- 3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- 5. Install a non-resettable hour meter if one is not already installed.
- 6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

# Operating Limits 40 CFR 63.6640(f)

- 1. Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
- 2. There is no time limit on the use of emergency stationary RICE in emergency situations.
- 3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
- 4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

# Recordkeeping Requirements 40 CFR 63.6655

- 1. Keep records of the maintenance conducted on the stationary RICE.
- 2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

#### Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2c to Subpart ZZZZ

1. An initial notification is not required per 40 CFR 63.6645(a)(5).

2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ 567 IAC 23.1(4)"cz"

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes \( \subseteq \text{No} \( \subseteq \)

Facility Maintained Operation & Maintenance Plan Required? Yes No 🖂

Compliance Assurance Monitoring (CAM) Plan Required? Yes No 🛛

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-2691-03-100	#2 Emergency Fire Water Pump South	Diesel Fuel	288 bhp	NA

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

## **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

#### **NSPS and NESHAP**

This emission unit is subject to New Source Performance Standards (NSPS) Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, and also subject to Subpart A: General Provisions

Authority for Requirements: 40 CFR 60 Subpart IIII 567 IAC 23.1(2)"yyy"

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this compression ignition emergency engine, located at a major source, is a new stationary RICE as it was constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(6), this emergency engine must meet the requirements of subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII for compression ignition engines. No further requirements apply for this emergency engine under subpart ZZZZ.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

## **NSPS Subpart IIII Requirements**

#### **Emission Standards:**

According to 40 CFR 60.4205(c) and Table 4 to Subpart IIII, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM
$225 \le kW < 450$ $(300 \le HP < 600)$	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)

#### Fuel Requirements:

You must use diesel fuel that has a maximum sulfur content of 15 ppm by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 1090.305.

# **Compliance Requirements:**

- 1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
  - d. Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
  - e. Changing only those emission-related settings that are permitted by the manufacturer; and
  - f. Meeting the requirements of 40 CFR 1068, as they apply to you.
- 2. You must demonstrate compliance with the applicable emission standards according to one of the following methods. 40 CFR 60.4211(b).

- f. Purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR 1039 and 40 CFR 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications.
- g. Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
- h. Keeping records of engine manufacturer data indicating compliance with the standards.
- i. Keeping records of control device vendor data indicating compliance with the standards.
- j. Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.
- 3. If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
$100 \le HP \le 500$	Within 1 year of engine startup, or non-permitted action (1)	Not required

<sup>(1)</sup> Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

# Operating and Recordkeeping Requirements

- 1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 40.4209(a)).
- 2. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).
- 3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
- 4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Compliance Assurance Monitoring (CAM) Plan Required?

Yes 
No

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-2691-03-101	#2 Emergency Fire Water Pump North	Diesel Fuel	282 bhp	NA

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

## **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

#### **NSPS and NESHAP**

This emission unit is subject to New Source Performance Standards (NSPS) Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, and also subject to Subpart A: General Provisions

Authority for Requirements: 40 CFR 60 Subpart IIII 567 IAC 23.1(2)"yyy"

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this compression ignition emergency engine, located at a major source, is a new stationary RICE as it was constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(6), this emergency engine must meet the requirements of subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII for compression ignition engines. No further requirements apply for this emergency engine under subpart ZZZZ.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ

567 IAC 23.1(4)"cz"

## **NSPS Subpart IIII Requirements**

#### **Emission Standards:**

According to 40 CFR 60.4205(c) and Table 4 to Subpart IIII, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM
$225 \le kW < 450  (300 \le HP < 600)$	2009+	4.0 (3.0)	3.5 (2.6)	0.20 (0.15)

#### **Fuel Requirements:**

You must use diesel fuel that has a maximum sulfur content of 15 ppm by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 1090.305.

#### Compliance Requirements:

- 1. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
  - a. Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
  - b. Changing only those emission-related settings that are permitted by the manufacturer; and
  - c. Meeting the requirements of 40 CFR 1068, as they apply to you.
- 2. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).

3. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test
$100 \le HP \le 500$	Within 1 year of engine	Not required
	startup, or non-permitted action <sup>(1)</sup>	

<sup>(1)</sup> Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

## Operating and Recordkeeping Requirements

Authority for Requirement: 567 IAC 22.108(3)

- 1. If your emergency engine does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine (40 CFR 40.4209(a)).
- 2. There is no time limit on the use of the emergency engine in emergency situations. 40 CFR 60.4211(f)(1).
- 3. The engine may be operated for the purpose of maintenance checks and readiness testing for a maximum of 100 hours/year. See 40 CFR 60.4211(f)(2) for more information.
- 4. The engine may be operated for up to 50 hours per year for non-emergency purposes. This operating time cannot be used for peak shaving or to generate income for the facility (e.g. supplying power to the grid) and should be included in the total of 100 hours allowed for maintenance checks and readiness testing. See 40 CFR 60.4211(f)(3) for more information.

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

**Associated Equipment** 

Emission	Emission	Emission Unit	Raw	Rated	Construction
Point	Unit	Description	Material	Capacity	Permit
EP-416	EU-ECC-GEN-1	Emergency Control Center Generator	Natural Gas	111 bhp	NA

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### **NESHAP:**

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(1)(ii) this spark ignition emergency engine, located at a major source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

# Operation and Maintenance Requirements 40 CFR 63.6602, 63.6625, 63.6640 and Tables 2c and 6 to Subpart ZZZZ

- 1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(i) for the oil analysis option to extend time frame of requirements.)
- 2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary.
- 3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

- 4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions
- 5. Install a non-resettable hour meter if one is not already installed.
- 6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

# Operating Limits 40 CFR 63.6640(f)

- 1. Any operation other than emergency operation, maintenance and testing and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
- 2. There is no time limit on the use of emergency stationary RICE in emergency situations.
- 3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.

# Recordkeeping Requirements 40 CFR 63.6655

- 1. Keep records of the maintenance conducted on the stationary RICE.
- 2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

# Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2c to Subpart ZZZZ

- 1. An initial notification is not required per 40 CFR 63.6645(a)(5).
- 2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2c. (See Footnote 1 of Table 2c for more information.)

Authority for Requirement:	40 CFR Part 63 Subpart ZZZZ
	567 IAC 23.1(4)"cz"

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🗵
Facility Maintained Operation & Maintenance Plan Required?	Yes ☐ No ⊠
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🗵
Authority for Requirement: 567 IAC 22.108(3)	

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction Permit
Unit	Description	Material	Capacity	
EU-CB-1	Change Building Boiler #1	Natural Gas	1.9 MMBtu/hr.	NA

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.8 lb/MMBtu

Authority for Requirement: 567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)"e"

#### **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### **NESHAP:**

This source is subject to 40 CFR 63 Subpart DDDDD – National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, and Institutional Boilers and Process Heaters.

Authority for Requirement: 40 CFR 63 Subpart DDDDD

#### **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required?	Yes 🗌 No 🖂

**Associated Equipment** 

Emission	Emission Unit	Raw	Rated	Construction
Unit	Description	Material	Capacity	Permit
EU-TP-P1	Trim Pit Diesel Pump	Diesel	49.6 bhp	NA

# **Applicable Requirements**

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter Emission Limit(s): 0.1 gr/scf

Authority for Requirement: 567 IAC 23.3(2)"a"

## **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

#### Reporting & Record keeping:

Records shall be kept on site for at least five years and shall be available for inspection by the Department.

1. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

# New Source Performance Standards (NSPS)

**National Emission Standards for Hazardous Air Pollutants (NESHAP)** 

This emission unit is subject to New Source Performance Standards (NSPS) Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, and also subject to Subpart A: General Provisions

Authority for Requirements: 40 CFR 60 Subpart IIII 567 IAC 23.1(2)"yyy"

The non-emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 40 CFR 63.6590(a)(2)(ii) this non-emergency engine, located at a major source, is a new stationary RICE as it was constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(7), a new compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions must meet the requirements of Part 63 by meeting the requirements of 40 CFR part 60 subpart IIII. No further requirements apply for this engine under Part 63.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ 567 IAC 23.1(4)"cz"

#### **NSPS Subpart IIII Requirements**

Emission Standards (for engines with displacement (L/cyl) < 10):

According to 40 CFR 60.4204(b) and 4201, you must comply with the following emission standards in grams/kW-hr (grams/HP-hr):

Maximum Engine Power	Model Year(s)	NMHC + NOx	CO	PM
$ 19 \le kW < 37  (25 \le HP < 50) $	2013+	4.7 (3.5)	5.5 (4.1)	0.03 (0.022)

# Fuel Requirements (if using diesel):

You must use diesel fuel that has a maximum sulfur content of 15 ppm (0.0015%) by weight and a minimum cetane index of 40 or a maximum aromatic content of 35 percent by volume. 40 CFR 60.4207 and 40 CFR 1090.305.

#### Compliance Requirements:

- 1. If your engine is equipped with a diesel particulate filter (DPF) to comply with the emission standards, the DPF must be installed with a backpressure monitor that notifies you when the high backpressure limit of the engine is approached. 40 CFR 60.4209(b).
- 2. You must operate and maintain the engine to comply with the required emission standards over the entire life of the engine (40 CFR 60.4206) by doing all of the following (40 CFR 60.4211(a)).
  - a) Operating and maintaining the engine and control device according to the manufacturer's emission-related written instructions;
  - b) Changing only those emission-related settings that are permitted by the manufacturer; and
  - c) Meeting the requirements of 40 CFR 1068, as they apply to you.
- 3. You must demonstrate compliance with the applicable emission standards by purchasing an engine certified to the applicable emission standards. The engine must be installed and configured according to the manufacturer's emission-related specifications. 40 CFR 60.4211(c).
- 4. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of

conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct the following performance testing in accordance with 40 CFR 60.4212 to demonstrate compliance with applicable emission standards. You are required to notify the DNR 30 days prior to the test date and are required to submit a stack test report to the DNR within 60 days after the completion of the testing. See 40 CFR 60.4211(g) for additional information.

Maximum Engine Power	Initial Test	Subsequent Test	
HP < 100	Within 1 year of non- permitted action (1)	Not required	

<sup>(1)</sup> Non-permitted action means that you do not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer.

# Notification and Recordkeeping Requirements

- 1. If your non-emergency engine is greater than 2,237 KW (3,000 HP), or has a displacement of greater than or equal to 10 liters per cylinder, you must meet the notification and recordkeeping requirements in 40 CFR 60.4214(a).
- 2. If your engine is equipped with a diesel particulate filter (DPF), you must keep records of any corrective action taken after the backpressure monitor has notified you that the high backpressure limit of the engine is approached. 40 CFR 60.4214(c).

## **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Facility Maintained Operation & Maintenance Plan Required?	Yes 🗌 No 🖂
Compliance Assurance Monitoring (CAM) Plan Required? Authority for Requirement: 567 IAC 22.108(3)	Yes 🗌 No 🖂

# IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

# G1. Duty to Comply

- 1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. 567 IAC 22.108(9)"a"
- 2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. 567 IAC 22.105 (2)"h"(3)
- 3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. 567 IAC 22.108 (1)"b"
- 4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. 567 IAC 22.108 (14)
- 5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. 567 IAC 22.108 (9)"b"
- 6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. 567 IAC 22.108(15)"c"

## **G2.** Permit Expiration

- 1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). 567 IAC 22.116(2)
- 2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air Permitting & Standards Branch, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). 567 IAC 22.105

# G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. 567 IAC 22.107 (4)

#### **G4.** Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status

of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. 567 IAC 22.108 (15)"e"

# **G5. Semi-Annual Monitoring Report**

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. 567 IAC 22.108 (5)

# **G6.** Annual Fee

- 1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
- 2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
- 3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
- 4. The fee shall be submitted annually by July 1 with forms specified by the department.
- 5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
- 6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
- 7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
- 8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

# G7. Inspection of Premises, Records, Equipment, Methods and Discharges

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

- 1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

103

- 3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- 4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. 567 IAC 22.108 (15)"b"

# **G8.** Duty to Provide Information

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. 567 IAC 22.108 (9)"e"

# **G9.** General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:

- 1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
- 2. Remedy any cause of excess emissions in an expeditious manner.
- 3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
- 4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. 567 IAC 24.2(1)

#### G10. Recordkeeping Requirements for Compliance Monitoring

- 1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
  - a. The date, place and time of sampling or measurements
  - b. The date the analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses; and
  - f. The operating conditions as existing at the time of sampling or measurement.
  - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
- 2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
- 3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:
  - a. Comply with all terms and conditions of this permit specific to each alternative scenario.
  - b. Maintain a log at the permitted facility of the scenario under which it is operating.
  - c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. 567 IAC 22.108(4), 567 IAC 22.108(12)

#### G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

- 1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
  - a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
  - b. Compliance test methods specified in 567 Chapter 25; or
  - c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
- 2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
  - a. Any monitoring or testing methods provided in these rules; or
  - b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. 567 IAC 21.5(1)-567 IAC 21.5(2)

# G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. 567 IAC 22.108(6)

#### G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). 567 IAC Chapter 131-State Only

## G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of

service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

- 2. Excess Emissions Reporting
  - a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:
    - i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
    - ii. The estimated quantity of the excess emission.
    - iii. The time and expected duration of the excess emission.
    - iv. The cause of the excess emission.
    - v. The steps being taken to remedy the excess emission.
    - vi. The steps being taken to limit the excess emission in the interim period.
  - b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:
    - i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
    - ii. The estimated quantity of the excess emission.
    - iii. The time and duration of the excess emission.
    - iv. The cause of the excess emission.
    - v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
    - vi. The steps that were taken to limit the excess emission.
    - vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. 567 IAC 24.1(1)-567 IAC 24.1(4)
- 3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. 567 IAC 22.108(16)

# **G15. Permit Deviation Reporting Requirements**

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). 567 IAC 22.108(5)"b"

# G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. 567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)

# G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

- 1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
  - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
  - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
  - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
  - d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 22.144(455B));.
  - e. The changes comply with all applicable requirements.
  - f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

- i. A brief description of the change within the permitted facility,
- ii. The date on which the change will occur,
- iii. Any change in emission as a result of that change,
- iv. The pollutants emitted subject to the emissions trade
- v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
- vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
- vii. Any permit term or condition no longer applicable as a result of the change. 567 IAC 22.110(1)
- 2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. 567 IAC 22.110(2)
- 3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). 567 IAC 22.110(3)
- 4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. 567 IAC 22.110(4)
- 5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. 567 IAC 22.108(11)

# G18. Duty to Modify a Title V Permit

- 1. Administrative Amendment.
  - a. An administrative permit amendment is a permit revision that does any of the following:
    - i. Correct typographical errors
    - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
    - iii. Require more frequent monitoring or reporting by the permittee; or
    - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
  - b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
  - c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.
- 2. Minor Title V Permit Modification.
  - a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:

- i. Do not violate any applicable requirement;
- ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
- iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
- iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
- v. Are not modifications under any provision of Title I of the Act; and
- vi. Are not required to be processed as significant modification under rule 567 22.113(455B).
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
  - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
  - ii. The permittee's suggested draft permit;
  - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
  - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
- c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.
- 3. Significant Title V Permit Modification.
- Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal. The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. 567 IAC 22.111-567 IAC 22.113

#### **G19. Duty to Obtain Construction Permits**

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. 567 IAC 22.1(1)

#### G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (567 IAC 23.1(3)"a"); training fires and controlled burning of a demolished building (567 IAC 23.2).

# **G21. Open Burning**

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. 567 IAC 23.2 except 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only

# G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. 567 IAC 22.108(7)

# G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

- 1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
  - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
  - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
- 2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply

- with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
- e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
- 3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,
- 5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. 40 CFR part 82

#### **G24. Permit Reopenings**

- 1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. 567 IAC 22.108(9)"c"
- 2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
  - a. Reopening and revision on this ground is <u>not</u> required if the permit has a remaining term of less than three years;
  - b. Reopening and revision on this ground is <u>not</u> required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.
  - c. Reopening and revision on this ground is <u>not</u> required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. 567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"
- 3. A permit shall be reopened and revised under any of the following circumstances:
  - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
  - b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
  - c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of

less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

- d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
- e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. 567 IAC 22.114(1)
- 4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. 567 IAC 22.114(2)
- 5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. 567 IAC 22.114(3)

#### **G25. Permit Shield**

- 1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
  - a. Such applicable requirements are included and are specifically identified in the permit; or
  - b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- 2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
- 3. A permit shield shall not alter or affect the following:
  - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
  - d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. 567 IAC 22.108 (18)

#### **G26.** Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. 567 IAC 22.108 (8)

#### **G27. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. 567 IAC 22.108 (9)"d"

#### **G28.** Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 22.111(1). 567 IAC 22.111 (1)"d"

#### G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. 567 IAC 22.3(3)"c"

# G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 - Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator Iowa DNR, Air Quality Bureau Wallace State Office Building 502 E 9<sup>th</sup> St.
Des Moines, IA 50319-0034 (515) 725-9545

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program. 567 IAC 25.1(7)"a", 567 IAC 25.1(9)

# G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons. 567 IAC 26.1(1)

#### **G32.** Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Iowa Compliance Officer

Air Branch

Enforcement and Compliance Assurance Division

U.S. EPA Region 7

11201 Renner Blvd.

Lenexa, KS 66219

(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau

Iowa Department of Natural Resources

Wallace State Office Building

502 E 9<sup>th</sup> St.

Des Moines, IA 50319-0034

(515) 725-8200

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

#### Field Office 1

1101 Commercial Court, Suite 10 Manchester, IA 52057 (563) 927-2640

#### Field Office 3

1900 N. Grand Ave. Spencer, IA 51301 (712) 262-4177

## Field Office 5

Wallace State Office Building 502 E 9<sup>th</sup> St. Des Moines, IA 50319-0034 (515) 725-0268

# **Polk County Public Works Dept.**

Air Quality Division 5885 NE 14th St. Des Moines, IA 50313 (515) 286-3351

#### Field Office 2

2300-15th St., SW Mason City, IA 50401 (641) 424-4073

#### Field Office 4

1401 Sunnyside Lane Atlantic, IA 50022 (712) 243-1934

#### Field Office 6

1023 West Madison Street Washington, IA 52353-1623 (319) 653-2135

#### **Linn County Public Health**

Air Quality Branch 1020 6<sup>th</sup> Street SE Cedar Rapids, IA 52401 (319) 892-6000

# V. Appendix A: Reference Web Links

- A. 40 CFR 60 Subpart A General Provisions
  <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-A">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-A</a>
- B. 40 CFR 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

  <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-IIII">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-60/subpart-IIII</a>
- C. 40 CFR 63 Subpart A General Provisions
  <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-A">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-A</a>
- D. 40 CFR 63 Subpart FFFF National Emission Standards for Hazardous Air Pollutants for Miscellaneous Organic Chemical Manufacturing <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-FFFF">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-FFFF</a>
- **E. 40 CFR 63 Subpart MMM** https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-MMM
- F. 40 CFR 63 Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-ZZZZ">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-ZZZZ</a>
- G. 40 CFR 63 Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters <a href="https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-DDDDD">https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-63/subpart-DDDDD</a>

04-TV-010R1: 10/26/2010